

**Memorandum of Agreement
to Foster, Implement, and Use
the Hopi Arsenic Mitigation Project ("HAMP")
and the Hopi Public Water System**

This Memorandum of Agreement is entered into by the Hopi Tribe acting through the Hopi Tribal Council and the Hopi Villages of First Mesa and Mishongnovi, Sipaulovi, and Shungopavi to foster, implement, and use the Hopi Arsenic Mitigation Project to provide an abundant, high quality domestic water supply to meet water needs of the Hopi Villages and nearby areas served by federal water systems on an operationally and financially sustainable basis for decades to come using the Hopi Public Water System to be administered by the Hopi Public Utility Authority. This Memorandum of Agreement shall be known as the "HAMP MOA." This MOA shall also serve to establish a foundation to bring Village water systems operated by Hopi Villages into compliance with all Safe Drinking Water Act standards through implementation of HAMP.

PARTIES: This agreement is entered into by:

- the Hopi Tribe ("Tribe") operating through the Hopi Tribal Council;
- the Village of First Mesa (operating through First Mesa Consolidated Villages);
- the Village of Mishongnovi (represented by _____);
- the Village of Sipaulovi (represented by _____); and
- the Village of Shungopavi (represented by _____).

In this Memorandum of Agreement, the four Villages are identified as "Village" and the Villages, together, are identified as "Villages," which when used to identify commitments shall represent the commitment of each individual Village.

MUTUAL UNDERSTANDINGS:

1. The Tribe and the Villages desire to improve the quality and quantity of water available to members of the Tribe and Villages within which they reside and to other residents and water customers of such Villages, including assuring that water available to the Tribe and Villages meets all applicable water quality standards.

2. The water supplies currently available to Hopi Villages at First Mesa and Second Mesa do not meet Safe Drinking Water Act national arsenic limitation standards.

Commented [BR1]: "exceed USEPA Safe Drinking Water Act maximum contaminant levels (MCLs) for arsenic."

3. Arsenic is a naturally occurring element often found in water that can have serious adverse health effects when consumed in quantities exceeding existing national water quality standards.

Commented [BR2]: "which exceed the established MCL of 10 parts per billion."

4. First Mesa Consolidated Villages and the Villages of Shungopavi and Sipaulovi have entered into compliance agreements with the Environmental Protection Agency to meet the national Safe Drinking Water Act standards for arsenic before the end of January 2015, which will require a new source of high quality water or expensive and technically complex removal of arsenic from local water sources.

Commented [BR3]: "MCL"

5. The Village of Mishongnovi is dependent on the water system managed by the Village of Sipaulovi and its water supply also does not meet the arsenic standards of the Safe Drinking Water Act.

Commented [BR4]: "exceeds the arsenic MCL"

6. An alternative source of water that will meet the national water quality standards must be developed for the Hopi Villages at First and Second Mesa and a distribution system constructed to convey such water to the Villages.

Commented [BR5]: "Safe Drinking Water Act MCL for arsenic"

7. The Tribe has secured approximately \$5,200,000 in federal grants for identification of such an alternative water supply and for planning, design and development of a water pumping and conveyance system, which is called the Hopi Arsenic Mitigation Project ("HAMP").

8. The Tribe and the Indian Health Service ("IHS") have jointly worked to develop HAMP, with the Indian Health Service taking the lead in planning, design, and engineering of HAMP for the Tribe and Hopi Villages and funding the costs of its engineering staff that is working on HAMP.

9. HAMP is being designed as a system that can provide abundant, high quality water that meets all applicable water quality standards and deliver

that water to Village water systems for use by the Villages in meeting the water needs of the residents of the Villages.

10. Extensive planning, design, and engineering work for HAMP has already been completed by IHS and such work by IHS continues with the initial goal being a final Project Engineering Report and Environmental Assessment early in 2014. The Project Engineering Report will include overall engineering design, project construction cost estimates, and estimated operating costs and will address operation and maintenance requirements, location of pipelines and other water system facilities and equipment, and financial viability projections for HAMP.
11. The latest estimated capital cost of HAMP is \$21,293,000, of which \$14,349,298 represents the Villages' share of the cost. This amount will be updated as the Project Engineering Report is completed and from time to time thereafter to reflect changes in construction cost indices and actual bid prices for contractual work and system supplies. Update as appropriate.
12. The latest estimated annual operational cost of the Villages' share of HAMP is \$413,801, which amount includes operation, maintenance, and administration of Hopi Public Water including costs of pumping and treating water; costs of equipment, replacements and HPUA staff; amortization of USDA-Rural Development loan or loans; and required reserves for USDA-Rural Development loan payment, replacement parts, and an emergency fund. This amount will be updated as the Project Engineering Report is completed and from time to time thereafter to reflect changes in costs including inflation over time.
13. A source of water for HAMP has been identified at the Turquoise Wellfield that can provide such an abundant, high quality supply of water, which can be pumped and distributed to Hopi Villages.
14. The first Turquoise well has been completed with excellent preliminary testing results including the ability to easily meet Safe Drinking Water Act arsenic standards and to produce abundant supplies of water. Work is being initiated on the second and final HAMP well. Update as appropriate.

Commented [EM6]: I believe this is quite low relative to the costs incurred by WMAT in running the Miner Flat Regional system.

Commented [BR7]: "which are well below the"

Commented [BR8]: "MCL"

15. HAMP is being designed so that it also can provide an abundant, high quality water system to meet the needs of the Keams Canyon , Hopi Junior-Senior High School, and Second Mesa Day School water systems, including the Indian Health Service housing served by the Keams Canyon water system. The estimated share of the cost of HAMP planning, design, engineering, and construction is \$6,943,702, which includes \$1,587,000 for connecting the BIA and BIE facilities up to the facilities currently being planned for HAMP. Update as appropriate.

16. The Tribe has secured a commitment for additional funds for HAMP from the IHS and is working with the Assistant Secretary – Indian Affairs of the Department of the Interior to identify the funding and financing arrangements required to meet the Assistant Secretary’s stated commitment to share in the cost of HAMP and to connect to HAMP to provide a high quality source of water to the Keams Canyon, Hopi Junior-Senior High School, and Second Mesa Day School water systems. Update as appropriate.

Commented [BR9]: Per Tom H., has this commitment been documented?

17. The financial support of the Bureau of Indian Affairs (“BIA”), Bureau of Indian Education (“BIE”) and IHS will be critical to the financing of HAMP and their participation in HAMP will reduce the cost of water service to the Villages and help maintain the long-term financial viability of HAMP.

Commented [EM10]: This is open ended and not well defined.

18. The Hopi Tribal Council has created the Hopi Public Utility Authority (HPUA) to, among other things, construct and operate the Hopi Public Water system (“Hopi Public Water”) that will meet all national water quality standards and provide sufficient water to the Villages to meet their needs for a supply of water for domestic and commercial uses.

19. The HPUA will be seeking loans and additional grants for planning, design, and implementation of HAMP, including construction of the Hopi Public Water system, from other federal agencies including the Department of Agriculture’s Rural Development program, and the federal lending and granting agencies will require that there be arrangements in place to assure that the water from Hopi Public Water will be received and used by the Hopi Villages and the water service be paid for by them on a long-term sustainable basis, including paying for the cost of amortizing all loans in the price of water over the 40-year life of such loans.

20. The Federal agencies providing funding for HAMP will also require that the Tribe and Villages assure the long-term physical and operational viability and protection of the Hopi Public Water system.
21. The BIA and BIE systems will also rely in part on Rural Development project loans secured through HPUA, which they will need to separately amortize over the 40-year loan repayment period;
22. The Hopi Tribe's Council will also be contributing substantial funding from the Hopi Tribal Council Fund for HAMP including for the construction of the Hopi Public Water system.
23. The Villages support the implementation of HAMP as the best means of providing an abundant source of high quality water to their peoples, institutions, and businesses.
24. The Villages also understand that domestic water received through HAMP and the resulting Hopi Public Water system will meet all federal water quality standards under the Safe Drinking Water Act and resolve issues related to compliance agreements they have entered into with EPA.
25. The Villages agree that such an abundant high quality source of water also should be available to the Keams Canyon, Hopi Junior-Senior High School, and Second Mesa Day School water systems, which serve a large number of Hopi students from the Villages, a number of Hopi homes and workers who provide important services to the Tribe.
26. The Villages recognize the need to make a commitment to implementation of HAMP as use of water from Hopi Public Water as their future source of domestic water, including making a commitment to pay HPUA for the water service from Hopi Public Water and to protect the Hopi Public Water system including the route of the Hopi Public Water system pipelines and other components of the Hopi Public Water system.

Commented [BR11]: "current federal"

COMMITMENTS ON THE PART OF THE TRIBE

The Tribe commits to do the following:

1. To support HAMP and do everything in its power to secure financing and support for it;
2. To work closely with the Villages and the Indian Health Service to complete the planning, design, and implementation of HAMP;
3. To provide \$2,000,000 in direct funding for planning, design, construction, and initial operations of HAMP from the Tribal Council Fund;
4. To designate and mark such public utility corridors or designate and secure or modify such rights-of-way as are necessary for construction of the Hopi Public Water system through HAMP, including consulting with Village leaders on them, and, subsequently, such more limited corridors or rights-of-way that are necessary for operation, maintenance, and repair of the Hopi Public Water system;
5. To support HPUA and do everything in its power to assure its operational and financial success including providing initial funding from the Tribal Council Fund to get it staffed and operational until it is financially self-sustaining for each of its operational public utility services;
6. To support Hopi Public Water and to do everything in its power to assure that HPUA dependably delivers high quality potable water that meets all Hopi and national water quality standards through the Hopi Public Water system on a wholesale basis to Hopi Villages and to the BIA and BIE that provide water through the federal Keams Canyon, Hopi Junior-Senior High School and Second Mesa Day School water systems;
7. To assure that HPUA maintains the Hopi Public Water system wells, pipelines, storage tanks, pumps, and any other water-supply related facilities and equipment in good working order and in compliance with all relevant standards;
8. To assure that HPUA enters into fair and appropriate contracts for wholesale water service to the Villages and other HPUA customers through its

Commented [EM12]: Doesn't state ROW across Village property.

Commented [BR13]: Is "Hopi Public Water" a formally established division of the HPUA?

Commented [BR14]: Safe drinking Water Act

oversight of HPUA and the Hopi Public Utility Commission and through providing funding for the Hopi Public Utility Commission from the Tribal Council Fund;

9. To assure that HPUA reports to the Villages via Consumer Confidence Reports as required by the Environmental Protection Agency under the Safe Drinking Water Act;
10. To assure that HPUA imposes no limitations on the quantity of water or hours of water service provided to the Villages or federal water systems of the BIA and BIE served by HPUA unless such restrictions are simultaneously imposed on all water users or restrictions are necessary for the repair and maintenance of the water distribution system; and
11. To assure that HPUA indemnifies, saves, and holds harmless each Village or any of its departments, agencies, employees or officers as to any environmental or other regulatory fines or penalties imposed by any Tribal or Federal agency including the Environmental Protection Agency or the Hopi Tribal Water Resources Office for violations arising from HPUA's operation of the Hopi Public water system.

Commented [BR15]: "reports annually"

COMMITMENTS OF THE VILLAGES

The Villages commit to do the following:

12. To support HAMP and do everything in their power to secure support for it;
13. To work closely with the Tribe, HPUA, IHS, BIA, and BIE to assure the success of HAMP;
14. To maintain at their own expense and liability the Villages' water distribution system past the Hopi Public Water system master meter;
15. To negotiate contracts for water service from HPUA through the Hopi Public Water system in good faith as details of water service and water fees become available;

16. To promptly and fully pay the contracted for fees for water service from HPUA whether from fees assessed by the Village for its water distribution service to customers or from other funds available to the Village from whatever source that are legally available for the purpose of providing water to customers including from H3 funds appropriated from the Tribal Council Fund, or a combination thereof; and

Commented [BR16]: Per Tom H., does this reference need to be more clearly defined?

17. To shut off the water supplies from existing wells in the Village and to not commingle the water from them with water supplied by HPUA.

Commented [EM17]: The real issue is for Villages to understand that there will be a significant base rate to cover costs of operating HAMP facilities regardless of how much water they use. This in turn will largely make operation of existing wells for blending purposes financially undesirable.

JOINT COMMITMENTS OF THE TRIBE AND VILLAGES

The Tribe and the Villages commit to do the following:

Commented [BR18]: USEPA-R9 (Bessie Lee) has previously stated that non-arsenic compliant wells must be physically disconnected from the village and/or school distribution systems in order to avoid the requirements (and expense) of annual well source sampling under the SDWA.

18. To cooperate with one another and with IHS in providing information and all IHS and HAMP contractors access necessary for the planning, design, financing, construction, and implementation of HAMP;

19. To protect utility corridors and/or rights-of-way for Hopi Public Water including keeping them free and clear of obstacles that will thwart their purposes including, initially, such corridors as are required for construction of the Hopi Public Water system through HAMP and, subsequently, such more limited corridors that are necessary for operation, maintenance, and repair of the Hopi Public Water system; and

20. To protect the Hopi Public Water facilities of HPUA including but not limited to pipelines, storage tanks, meters, measuring and communication devices, pipelines, wells, and pumps, and structures which are necessary to administer, operate and maintain the Hopi Public Water system and to deliver high quality water to the Villages and to the BIA and BIE water systems including for homes for IHS employees served by the Keams Canyon water system.

FURTHER UNDERSTANDINGS OF THE PARTIES

The Parties further agree that:

21. Accommodations will be made to the terms of this agreement for any Village if such Village, at its own discretion, wishes to contract with HPUA to directly operate its water distribution system and an agreement is reached with HPUA for such direct operation; and
22. The ownership, control, and liability for the water distributions systems that are connected to the Hopi Public Water system shall remain the sole responsibility of the respective villages.

APPROVAL OF THE MEMORANDUM OF AGREEMENT

IN WITNESS WHEREOF, this Memorandum of Agreement has been executed by the duly authorized officers of the Parties on the dates shown below their names:

For the Village and Government of First Mesa:

[Title]

Dated: _____

For the Village and Government of Mishongnovi:

[Title]

Dated: _____

For the Village and Government of Shungopavi:

[Title]

Dated: _____

For the Village and Government of Sipaulovi:

[Title]

Dated: _____

For the Hopi Tribe:

Chairman, the Hopi Tribe

Dated: _____

The following comments have been proposed for consideration/inclusion in the MOA. Comments in blue were submitted by Adam Hughes/Robert Lorenz. Additional comments in red are from Tom Heintzman. All comments remain un-edited at this time.

- Provision for the HPUA to deliver SDWA compliant water at the master meter, including a chlorine residual
- Minimum pressure and maximum flow rate to be delivered at the master meter by the HPUA
- Acknowledgment that the villages systems will be “consecutive water systems” as defined by the SDWA and will need to comply with the SDWA on their side of the master meter; including: potential need for additional chlorination by the village, village requirements to meet the lead and copper rule (which may require treatment not currently in place)
- Whether the villages be allowed to blend water from their sources
- Acknowledgment by the villages that the HPUA may potentially need to access telemetry located on village water storage tanks, access altitude valve vaults, and access other misc. items after the master meter
- Whether there be requirements placed upon the villages to provide backflow prevention, with or without blending
- Discussion of base and commodity water rates
- Discussion of water rate per gallon – equalized rate (postage stamp rate) – each village and customer to pay the same rate per gallon without regard to location or complexity of HAMP facilities providing water to the customer
- Discussion of setting of water rates, provisions for re-evaluating rates in the future, adjustment of rates by the HPUA, etc.
- Land use concurrence by the village in the form of _____ for the location of HAMP facilities – to include reasonably proximate project maps (see comment below on ROW)
- Acknowledgement by the villages that the HPUA will be periodically entering in and upon village lands for maintenance, management, upkeep, and repair of HPUA facilities – whether or not a formal ROW exists to define the location and boundaries of such facilities Given the Tribe’s position on the site control for well drilling, do “village lands” exist? The draft MOA section 4. says the Tribe will consult with village leaders on ROW. It’s pretty undefined as written what will be done (designate and mark, or designate and secure, or modify) .
- Acknowledgement that the HAMP design and configuration may undergo revisions/upgrades/improvements in the future, that the HPUA will notify and consult with the villages on land use issues before altering the locations and layouts of HAMP facilities in the future

- Acknowledgement that the HPUA may alter, improve, or refine best management practices in regards to any aspect of the HAMP and its management and that the villages will still be bound by this agreement to participate in the HAMP at a minimum participation level of paying the monthly base rate
- Agreement that no village may opt out of the HAMP once the HAMP is constructed